[Federal Register, Volume 88 Number 184 (Monday, September 25, 2023)]
[Rules and Regulations]
[Pages 65581-65583]
From the Federal Register Online via the Government Publishing Office [www.gpo.gov]
[FR Doc No: 2023-20635]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA–2023–0932; Project Identifier MCAI–2022–01491–E; Amendment 39–22542; AD 2023–18–01]

RIN 2120–AA64

Airworthiness Directives; Rolls-Royce Deutschland Ltd. & Co. KG Engines

AGENCY:

Federal Aviation Administration (FAA), DOT.

ACTION:

Final rule.

SUMMARY:

The FAA is superseding Airworthiness Directive (AD) 2021–26–11 for all Rolls-Royce Deutschland Ltd. & Co. KG (RRD) Model RB211-Trent 875–17, 877–17, 884–17, 884B–17, 892–17, 892B–17, and 895–17 engines. AD 2021–26–11 required replacing the affected fuel pump on at least one affected engine. Since the FAA issued AD 2021–26–11, the FAA has determined that replacing all affected fuel pumps on all installed engines is necessary to address the unsafe condition. This AD was prompted by reports of single-engine events caused by water contamination, which led to corrosion on the fuel pump that resulted in loss of engine thrust. This AD requires replacing the affected fuel pump on at least one engine before further flight and replacing all affected fuel pumps within a specified compliance time. This AD would also prohibit installing any affected engine onto any airplane or any affected fuel pump onto any engine, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference (IBR). The FAA is issuing this AD to address the unsafe condition on these products.

DATES:

This AD is effective October 30, 2023.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of October 30, 2023.

ADDRESSES:

AD Docket: You may examine the AD docket at *regulations.gov* under Docket No. FAA–2023–0932; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M–30, West Building Ground Floor, Room W12–140, 1200 New Jersey Avenue SE, Washington, DC 20590.

Material Incorporated by Reference:

• For service information identified in this final rule, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: *ADs@easa.europa.eu;* website: *easa.europa.eu.*

• You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222–5110. It is also available in the AD docket at *regulations.gov* under Docket No. FAA–2023–0932.

FOR FURTHER INFORMATION CONTACT:

Sungmo Cho, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238–7241; email: *sungmo.d.cho@faa.gov*.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2021–26–11, Amendment 39–21870 (86 FR 71367, December 16, 2021), (AD 2021–26–11). AD 2021–26–11 applied to all RRD Model RB211 Trent 875–17, 877–17, 884–17, 884B–17, 892–17, 892B–17, and 895–17 engines. AD 2021–26–11 required replacing the affected fuel pump on at least one affected engine. The FAA issued AD 2021–26–11 to prevent failure of the variable stator vane system.

The NPRM published in the **Federal Register** on April 18, 2023 (88 FR 23583). The NPRM was prompted by EASA AD 2022–0225, dated November 21, 2022 (EASA AD 2022–0225) (referred to after this as the MCAI), issued by EASA, which is the Technical Agent for the Member States of the European Union. The MCAI states that reports of single-engine events caused by water contamination resulted in loss of engine thrust. An investigation determined that certain engines were exposed to unacceptable levels of water contamination, which caused corrosion on the fuel pump's internal components. This corrosion led to debris release and filter blockages in variable stator vane actuator control units, which resulted in the variable stator vane system failing in the closed position.

The FAA has since determined that in addition to replacing the affected fuel pump on at least one engine before further flight, replacing all affected fuel pumps installed on all engines within a specified

compliance time and prohibiting installation of any affected engine onto any airplane or any affected fuel pump onto any engine is necessary to address the unsafe condition. Subsequently, the manufacturer published service information, which describes procedures for replacing the fuel pump.

You may examine the MCAI in the AD docket at *regulations.gov* under Docket No. FAA–2023–0932.

In the NPRM, the FAA proposed to require replacing the affected fuel pump on at least one engine before further flight and replacing all affected fuel pumps within a specified compliance time. In the NPRM, the FAA also proposed to prohibit installation of any affected engine onto any airplane or any affected fuel pump onto any engine.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from two commenters. The commenters were American Airlines (AA) and The Boeing Company (Boeing). The following presents the comments received on the NPRM and the FAA's response to each comment.

Support for the AD

Boeing supported the NPRM without change.

Request To Clarify Return of Affected Parts

AA requested that the FAA clarify whether the intent of the NPRM is for affected pumps to be returned to Eaton Corporation for rectification/modification to become eligible for installation, or for all affected pumps listed in Rolls-Royce Alert Non-Modification Service Bulletin (NMSB) RB.211–73–AK840, Original Issue, dated Sep 13, 2022 (RB.211–73–AK840), to never be reinstalled on any U.S. registered carrier's engine or aircraft. AA stated that EASA AD 2022–0225 allows pumps modified by RB.211–73–AK840 to be reinstalled, and since EASA AD 2022–0225 is incorporated by reference, it can be assumed that the NPRM also allows pumps modified by RB.211–73–AK840 to be reinstalled. AA also noted that paragraphs (h)(5) and (6) of the proposed AD do not indicate if an affected pump that is removed from service should be returned to the Eaton Corporation for rectification/modification. Additionally, AA noted that if an affected pump is not returned to the Eaton Corporation for rectification/modification, it will never be eligible for reinstallation.

The FAA agrees to clarify. The intent of the NPRM is not to require that the affected parts never be reinstalled on any U.S. registered carrier's engine or aircraft. If an affected part is repaired, it is no longer considered to be included in the population of affected parts, and, therefore, is eligible for reinstallation. However, the FAA cannot require that an affected part be sent to a specific shop for repair, as that decision is at the discretion of the operator. Operators may elect to return affected fuel pumps that have been removed from service to the vendor, or to an approved facility for repair.

Conclusion

These products have been approved by the aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design

Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting the AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM.

Related Service Information Under 1 CFR Part 51

The FAA reviewed EASA AD 2022–0225, which specifies procedures for replacing the affected fuel pump. EASA AD 2022–0225 also specifies not to install an affected engine onto any airplane or an affected part onto any engine.

This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in **ADDRESSES** .

Differences Between This AD and the MCAI

Where paragraph (1) of EASA AD 2022–0225 requires replacing the affected part within 30 days after November 17, 2021 (the effective date of EASA AD 2021–0245), this AD requires replacing an affected fuel pump on at least one engine before further flight after the effective date of this AD.

Where paragraphs (3) and (4) of EASA AD 2022–0225 refer to November 17, 2021 (the effective date of EASA AD 2021–0245), this AD requires using the effective date of this AD.

Costs of Compliance

The FAA estimates that this AD affects 2 engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Replace fuel pump	9 work-hours × $85 per hour = $765	$138,456	$139,221	$278,442

Authority for This Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the

scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

The FAA has determined that this AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Will not affect intrastate aviation in Alaska, and

(3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

- Air transportation
- Aircraft
- Aviation safety
- Incorporation by reference
- Safety

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39—AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive 2021–26–11, Amendment 39–21870 (86 FR 71367, December 16, 2021); and

b. Adding the following new airworthiness directive:

2023–18–01 Rolls-Royce Deutschland Ltd & Co KG: Amendment 39–22542; Docket No. FAA–2023–0932; Project Identifier MCAI–2022–01491–E.

(a) Effective Date

This airworthiness directive (AD) is effective October 30, 2023.

(b) Affected ADs

This AD replaces AD 2021–26–11, Amendment 39–21870 (86 FR 71367, December 16, 2021).

(c) Applicability

This AD applies to Rolls-Royce Deutschland Ltd. & Co. KG Model RB211–Trent 875–17, 877–17, 884–17, 884B–17, 892–17, 892B–17, and 895–17 engines.

(d) Subject

Joint Aircraft System Component (JASC) Code 7314, Engine Fuel Pump.

(e) Unsafe Condition

This AD was prompted by reports of single-engine events caused by water contamination, which led to corrosion on the fuel pump that resulted in loss of engine thrust. The FAA is issuing this AD to prevent failure of the variable stator vane system. The unsafe condition, if not addressed, could result in dual-engine loss of thrust control or in-flight engine shutdown, and reduced control of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

Except as specified in paragraphs (h) and (i) of this AD: Perform all required actions within the compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2022–0225, dated November 21, 2022 (EASA AD 2022–0225).

(h) Exceptions to EASA AD 2022–0225

(1) Where paragraph (1) of EASA AD 2022–0225 specifies to replace the affected part with a fuel pump that is not an affected part, on at least one of the affected engines within 30 days after 17 November 2021 (the effective date of EASA AD 2021–0245), this AD requires replacing an affected fuel pump on at least one engine before further flight after the effective date of this AD.

(2) Where paragraph (2) of EASA AD 2022–0225 refers to its effective date, this AD requires using the effective date of this AD.

(3) Where paragraphs (3) and (4) of EASA AD 2022–0225 refer to November 17, 2021 (the effective date of EASA AD 2021–0245), this AD requires using the effective date of this AD.

(4) This AD does not adopt the Remarks paragraph of EASA AD 2022–0225.

(5) Where the service information referenced in EASA AD 2022–0225 specifies to scrap fuel pumps,

this AD requires removing those fuel pumps from service.

(6) Where the service information referenced in EASA AD 2022–0225 specifies to return fuel pumps, this AD requires removing those fuel pumps from service.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2022–0225 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, AIR–520, Continued Operational Safety Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k) of this AD and email to: *ANE-AD-AMOC@faa.gov*.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Additional Information

For more information about this AD, contact Sungmo Cho, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238–7241; email: *sungmo.d.cho@faa.gov*.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2022–0225, dated November 21, 2022.

(ii) [Reserved]

(3) For EASA AD 2022–0225, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: *ADs@easa.europa.eu;* website: *easa.europa.eu*. You may find this EASA AD on the EASA website at *ad.easa.europa.eu*.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA 01803. For information on the availability of this material at the FAA, call (817) 222–5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA,

email: *fr.inspection@nara.gov*, or go to: *www.archives.gov/federal-register/cfr/ibr-locations.html*.

Issued on September 19, 2023.

Victor Wicklund,

Deputy Director, Compliance & Airworthiness Division, Aircraft Certification Service.

[FR Doc. 2023–20635 Filed 9–22–23; 8:45 am]

BILLING CODE 4910–13–P